

03/15/01  
J1051 U.S. PTO

**UTILITY  
PATENT APPLICATION  
TRANSMITTAL**

Our Docket No.: **169.12-0487**

Date: **March 15, 2001**

First Named Inventor: **Peter Crane et al.**

Title: **MICRO-ACTUATOR STRUCTURE FOR IMPROVED  
STABILITY**

Express Mail No.: **EL705878409US**

J1046 U.S. PTO  
09/808843  
03/15/01

**APPLICATION ELEMENTS**

ADDRESS TO:

**Assistant Commissioner for Patents  
Box Patent Application  
Washington, D.C. 20231**

1. ☒ Fee Calculation Sheet  
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status
3. ☒ Specification Total Pages [15]
  - Descriptive title of the invention
  - Cross References to Related Applications
  - Statement Regarding Fed. Sponsored R&D
  - Reference to Microfiche Appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claims
  - Abstract of the Disclosure
4. ☒ Drawings (35 U.S.C. 113) Total Sheets [5]
5. ☒ Oath or Declaration Total Pages [2]
  - a. ☒ Newly Executed (original or copy)
  - b. ☐ Copy from a prior application (37 C.F.R. 1.63(d) - for continuation/divisional with Box 18 completed)
    - [Mark Box 5 below]**
    - I. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. 1.63(d)(2) and 1.33(b)
6. ☒ Application Data Sheet. See 37 CFR 1.76.

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (*Appendix*)
8. Nucleotide and/or Amino Acid Sequence Submission (*If applicable, all necessary*)
  - a. ☐ Computer Readable Copy (CRF)
  - b. Specification Sequence Listing on:
    - i. ☐ CD-ROM or CD-R (2 copies; or
    - ii. ☐ Paper
  - c. ☐ Statements verifying identity of above copies

**ACCOMPANYING APPLICATION PARTS**

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☒ 37 C.F.R. 3.73(b) Submission
- ☒ Power of Attorney
11. ☐ English Translation Document (*if applicable*)
12. ☒ Information Disclosure Statement with copies of Citations as necessary
13. ☐ Preliminary Amendment Total Pages [ ]
14. ☒ Return Receipt Postcard (*Should be specifically itemized*)
15. ☐ Certified Copy of Priority document(s) (*If foreign priority is claimed*)
16. ☐ Request and Certification under 35 U.S.C.122(b)(2)(B)(i). (Nonpublication Request)
17. ☐ Other

18. If a **CONTINUING APPLICATION**, check appropriate box and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Division ☐ Continuation-in-part (CIP) of prior Application No.

Prior Application Information: Examiner          Group Art Unit         

For CONTINUATION OR DIVISIONAL APPS only The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

**19. CORRESPONDENCE ADDRESS**

ATTY NAME  
AND REG. NO.

**David R. Fairbairn  
Reg. No. 26,047**

SIGNATURE:



ADDRESS

**Kinney & Lange, P.A.  
THE KINNEY & LANGE BUILDING  
312 South Third Street  
Minneapolis, MN 55415-1002**

TELEPHONE

**(612) 339-1863**

FAX: **(612) 339-6580**

FEE TRANSMITTAL		Complete if Known																																																																																																																																											
		Application No.																																																																																																																																											
		Filing Date	Herewith																																																																																																																																										
		First Named Inventor	Peter Crane et al.																																																																																																																																										
		Group Art Unit																																																																																																																																											
		Examiner Name																																																																																																																																											
Total Amount of Payment \$750.00		Atty. Docket Number	169.12-0487																																																																																																																																										
METHOD OF PAYMENT (Check One)		FEE CALCULATION (Continued)																																																																																																																																											
1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fee required under 37 C.F.R. 1.16 and 1.17 and credit any over payments to Deposit Account No. 11-0982. Deposit Account Name. Kinney & Lange, P.A.		<b>3. ADDITIONAL FEES</b>  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee paid</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge - Late filing fee or oath</td><td>*</td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td>*</td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td>*</td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For Filing a Request for Reexamination</td><td>*</td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for reply within first month</td><td>*</td></tr> <tr><td>116</td><td>390</td><td>216</td><td>195</td><td>Extension for reply within second month</td><td>*</td></tr> <tr><td>117</td><td>890</td><td>217</td><td>445</td><td>Extension for reply within third month</td><td>*</td></tr> <tr><td>118</td><td>1,390</td><td>218</td><td>695</td><td>Extension for reply within fourth month</td><td>*</td></tr> <tr><td>128</td><td>1,890</td><td>280</td><td>945</td><td>Extension for reply within fifth month</td><td>*</td></tr> <tr><td>120</td><td>310</td><td>220</td><td>155</td><td>Filing a brief in support of an appeal</td><td>*</td></tr> <tr><td>121</td><td>270</td><td>221</td><td>135</td><td>Request for oral hearing</td><td>*</td></tr> <tr><td>148</td><td>110</td><td>248</td><td>55</td><td>Terminal Disclaimer Fee</td><td>*</td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive - unavoidable</td><td>*</td></tr> <tr><td>141</td><td>1,240</td><td>241</td><td>620</td><td>Petition to revive - unintentional</td><td>*</td></tr> <tr><td>142</td><td>1,270</td><td>242</td><td>650</td><td>Utility/Reissue issue fee (inc. advance copies)</td><td>*</td></tr> <tr><td>143</td><td>440</td><td>243</td><td>220</td><td>Design issue fee (inc. advance copies)</td><td>*</td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commissioner</td><td>*</td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Petitions related to provisional applications</td><td>*</td></tr> <tr><td>126</td><td>180</td><td>126</td><td>180</td><td>Submission of Information Disclosure Statement</td><td>*</td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td>X</td></tr> <tr><td colspan="5">Other fee (specify) _____</td><td>*</td></tr> <tr><td colspan="5" style="text-align: right;">Subtotal (3) \$40.00</td><td></td></tr> </tbody> </table>		Large Entity Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Fee Description	Fee paid	105	130	205	65	Surcharge - Late filing fee or oath	*	127	50	227	25	Surcharge - late provisional filing fee or cover sheet	*	139	130	139	130	Non-English specification	*	147	2,520	147	2,520	For Filing a Request for Reexamination	*	115	110	215	55	Extension for reply within first month	*	116	390	216	195	Extension for reply within second month	*	117	890	217	445	Extension for reply within third month	*	118	1,390	218	695	Extension for reply within fourth month	*	128	1,890	280	945	Extension for reply within fifth month	*	120	310	220	155	Filing a brief in support of an appeal	*	121	270	221	135	Request for oral hearing	*	148	110	248	55	Terminal Disclaimer Fee	*	140	110	240	55	Petition to revive - unavoidable	*	141	1,240	241	620	Petition to revive - unintentional	*	142	1,270	242	650	Utility/Reissue issue fee (inc. advance copies)	*	143	440	243	220	Design issue fee (inc. advance copies)	*	122	130	122	130	Petitions to the Commissioner	*	123	50	123	50	Petitions related to provisional applications	*	126	180	126	180	Submission of Information Disclosure Statement	*	581	40	581	40	Recording each patent assignment per property (times number of properties)	X	Other fee (specify) _____					*	Subtotal (3) \$40.00					
Large Entity Fee Code	Large Entity Fee (\$)			Small Entity Fee Code	Small Entity Fee (\$)	Fee Description	Fee paid																																																																																																																																						
105	130	205	65	Surcharge - Late filing fee or oath	*																																																																																																																																								
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	*																																																																																																																																								
139	130	139	130	Non-English specification	*																																																																																																																																								
147	2,520	147	2,520	For Filing a Request for Reexamination	*																																																																																																																																								
115	110	215	55	Extension for reply within first month	*																																																																																																																																								
116	390	216	195	Extension for reply within second month	*																																																																																																																																								
117	890	217	445	Extension for reply within third month	*																																																																																																																																								
118	1,390	218	695	Extension for reply within fourth month	*																																																																																																																																								
128	1,890	280	945	Extension for reply within fifth month	*																																																																																																																																								
120	310	220	155	Filing a brief in support of an appeal	*																																																																																																																																								
121	270	221	135	Request for oral hearing	*																																																																																																																																								
148	110	248	55	Terminal Disclaimer Fee	*																																																																																																																																								
140	110	240	55	Petition to revive - unavoidable	*																																																																																																																																								
141	1,240	241	620	Petition to revive - unintentional	*																																																																																																																																								
142	1,270	242	650	Utility/Reissue issue fee (inc. advance copies)	*																																																																																																																																								
143	440	243	220	Design issue fee (inc. advance copies)	*																																																																																																																																								
122	130	122	130	Petitions to the Commissioner	*																																																																																																																																								
123	50	123	50	Petitions related to provisional applications	*																																																																																																																																								
126	180	126	180	Submission of Information Disclosure Statement	*																																																																																																																																								
581	40	581	40	Recording each patent assignment per property (times number of properties)	X																																																																																																																																								
Other fee (specify) _____					*																																																																																																																																								
Subtotal (3) \$40.00																																																																																																																																													
2. <input checked="" type="checkbox"/> Check Enclosed																																																																																																																																													
FEE CALCULATION																																																																																																																																													
<b>1. BASIC FILING FEE</b>  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> </tr> </thead> <tbody> <tr><td>101</td><td>710</td><td>201</td><td>355</td><td><input checked="" type="checkbox"/> Utility Filing Fee</td></tr> <tr><td>106</td><td>320</td><td>206</td><td>160</td><td><input type="checkbox"/> Design Filing Fee</td></tr> <tr><td>108</td><td>710</td><td>208</td><td>355</td><td><input type="checkbox"/> Reissue Filing Fee</td></tr> <tr><td>114</td><td>150</td><td>214</td><td>75</td><td><input type="checkbox"/> Prov. Filing Fee</td></tr> <tr><td colspan="5" style="text-align: right;">Subtotal (1) \$710.00</td></tr> </tbody> </table>		Large Entity Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Fee Description	101	710	201	355	<input checked="" type="checkbox"/> Utility Filing Fee	106	320	206	160	<input type="checkbox"/> Design Filing Fee	108	710	208	355	<input type="checkbox"/> Reissue Filing Fee	114	150	214	75	<input type="checkbox"/> Prov. Filing Fee	Subtotal (1) \$710.00																																																																																																																		
Large Entity Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Fee Description																																																																																																																																									
101	710	201	355	<input checked="" type="checkbox"/> Utility Filing Fee																																																																																																																																									
106	320	206	160	<input type="checkbox"/> Design Filing Fee																																																																																																																																									
108	710	208	355	<input type="checkbox"/> Reissue Filing Fee																																																																																																																																									
114	150	214	75	<input type="checkbox"/> Prov. Filing Fee																																																																																																																																									
Subtotal (1) \$710.00																																																																																																																																													
<b>2. EXTRA CLAIM FEES</b>  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Number Claims</th> <th>Prior**</th> <th>Extra</th> <th>Fee from Below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>Total</td> <td>20</td> <td>-</td> <td>20</td> <td>= 0 x 0 = 0</td> <td></td> </tr> <tr> <td>Indep.</td> <td>3</td> <td>-</td> <td>3</td> <td>= 0 x 0 = 0</td> <td></td> </tr> <tr> <td>Multiple Dependent Claims</td> <td></td> <td></td> <td></td> <td>* = *</td> <td></td> </tr> </tbody> </table> <p>**Insert 3 and 20, or number previously paid if greater, Reissue see below</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Description</th> </tr> </thead> <tbody> <tr><td>103</td><td>18</td><td>203</td><td>9</td><td>Claims in excess of 20</td></tr> <tr><td>102</td><td>80</td><td>202</td><td>40</td><td>Independent claims in excess of 3</td></tr> <tr><td>104</td><td>270</td><td>204</td><td>135</td><td>Multiple Dependent Claim</td></tr> <tr><td>109</td><td>80</td><td>209</td><td>40</td><td>Reissue Independent Claims Over Original Patent</td></tr> <tr><td>110</td><td>18</td><td>210</td><td>9</td><td>Reissue claims in excess of 20 and over original patent</td></tr> <tr><td colspan="5" style="text-align: right;">Subtotal (2) \$</td></tr> </tbody> </table>			Number Claims	Prior**	Extra	Fee from Below	Fee Paid	Total	20	-	20	= 0 x 0 = 0		Indep.	3	-	3	= 0 x 0 = 0		Multiple Dependent Claims				* = *		Large Entity Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Description	103	18	203	9	Claims in excess of 20	102	80	202	40	Independent claims in excess of 3	104	270	204	135	Multiple Dependent Claim	109	80	209	40	Reissue Independent Claims Over Original Patent	110	18	210	9	Reissue claims in excess of 20 and over original patent	Subtotal (2) \$																																																																																					
	Number Claims	Prior**	Extra	Fee from Below	Fee Paid																																																																																																																																								
Total	20	-	20	= 0 x 0 = 0																																																																																																																																									
Indep.	3	-	3	= 0 x 0 = 0																																																																																																																																									
Multiple Dependent Claims				* = *																																																																																																																																									
Large Entity Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Description																																																																																																																																									
103	18	203	9	Claims in excess of 20																																																																																																																																									
102	80	202	40	Independent claims in excess of 3																																																																																																																																									
104	270	204	135	Multiple Dependent Claim																																																																																																																																									
109	80	209	40	Reissue Independent Claims Over Original Patent																																																																																																																																									
110	18	210	9	Reissue claims in excess of 20 and over original patent																																																																																																																																									
Subtotal (2) \$																																																																																																																																													

Signature David R. Fairbairn Reg. No. 26,047

Date 3/15/01 Deposit Account No. 11-0982

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor : Peter Crane et al. Appln. No. : Filed : Herewith Title : MICRO-ACTUATOR STRUCTURE FOR IMPROVED STABILITY Docket No. : I69.12-0487	Group Art Unit: Examiner:
--	------------------------------

SUBMISSION UNDER 37 C.F.R. 3.73(b)

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Seagate Technology LLC, a Delaware corporation, is an owner of the patent application identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel \_\_, Frame \_\_, or a copy of which is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or a copy of which is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or a copy of which is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or a copy of  
which is attached.

The undersigned (whose title is supplied below) is empowered to sign this statement on  
behalf of Seagate Technology LLC.

Signature:



Leland D. Schultz, Reg. No. 30,322

Date:

3/6/01

Title:

Senior Director of Intellectual Property  
and Technology Management